

**ABSTRACT**

The invention relates to the nucleic acid sequences of four novel human SMAPK3-related gene variants (SMAPK3V1, SMAPK3V2, SMAPK3V3 and SMAPK3V4) and the polypeptides encoded by SMAPK3V1 and SMAPK3V2.

The invention also relates to the process for producing the polypeptides encoded by SMAPK3V1 and SMAPK3V2.

The invention further relates to the use of the nucleic acid of SMAPK3V1, SMAPK3V2, SMAPK3V3 and SMAPK3V4 and the polypeptide encoded by SMAPK3V1 and SMAPK3V2 in diagnosing diseases associated with the deficiency of human SMAPK3V gene, in particular large cell lung cancers and Burkitt lymphoma.